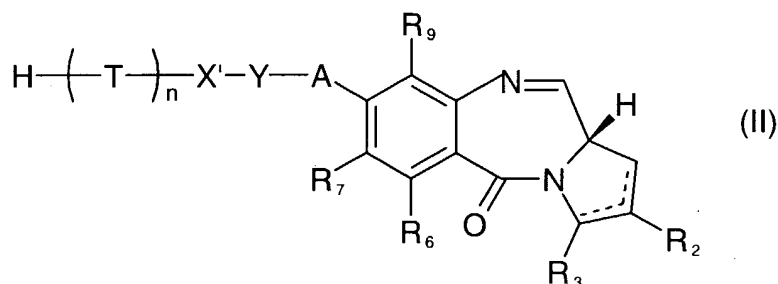


Listing of Claims

1-38. Cancelled

39. (New) A collection of compounds all of which are represented by formula II:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

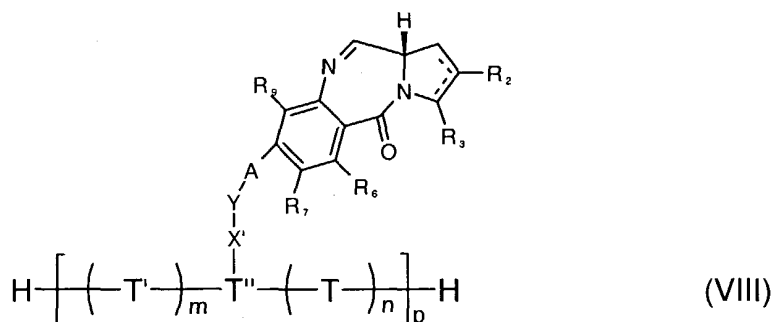
X' is CO, NH, S or O;

T is a combinatorial unit; and

and n is a positive integer.

40. (New) A collection of compounds according to claim 39 wherein R and HY are independently selected from lower alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, or an aryl group, of up to 12 carbon atoms, optionally substituted by one or more halo, hydroxy, amino, or nitro groups.

41. (New) A collection of compounds according to claim 39, wherein R and HY are independently selected from lower alkyl groups having 1 to 10 carbon atoms optionally substituted by one or more halo, hydroxy, amino, or nitro groups.
42. (New) A collection of compounds according to claim 39, wherein R or HY are independently selected from unsubstituted straight or branched chain alkyl groups, having 1 to 10 carbon atoms.
43. (New) A collection of compounds according to claim 39 wherein R₇ is an electron donating group.
44. (New) A collection of compounds according to claim 39 wherein R₆ and R₉ are H.
45. (New) A collection of compounds according to claim 39, wherein R₂ and R₃ of are H.
46. (New) A collection of compounds according to claim 45, wherein R₇ is an alkoxy group.
47. (New) A collection of compounds according to claim 39 wherein there is no double bond between C2 and C3.
48. (New) A collection of compounds according to claim 39, wherein -Y-A- is an alkoxy chain.
49. (New) A collection of compounds according to claim 39, wherein X' is either CO or NH.
50. (New) A collection of compounds according to claim 39, wherein n is from 1 to 16.
51. (New) A collection of compounds all of which are represented by formula VIII:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

n is a positive integer;

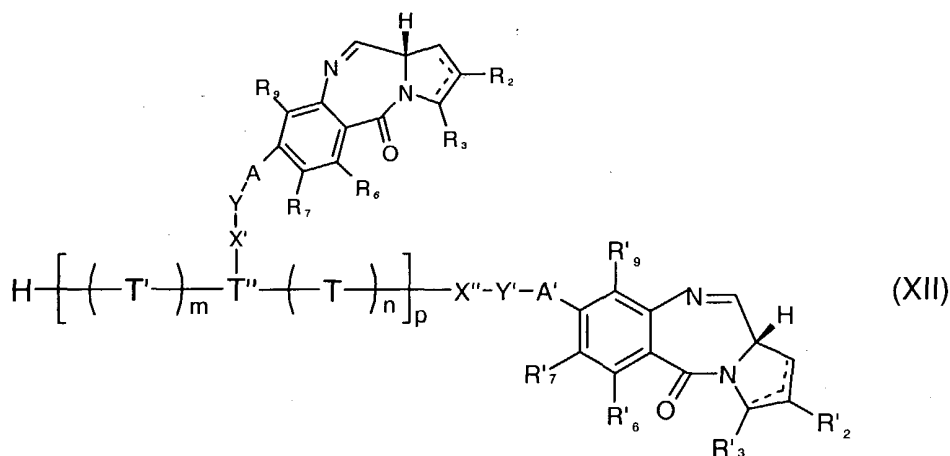
m is a positive integer;

T' is a combinatorial unit, where each T' may be different if m is greater than 1;

T'' is combinatorial unit which provides a site for the attachment of X'; and

p is a positive integer, where if p is greater than 1, for each repeating unit the meaning of X', Y, A, R₂, R₃, R₆, R₇, R₉, T, T', T'' and values of n and m are independently selected.

52. (New) A collection of compounds all of which are represented by formula XII:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

n is a positive integer;

m is a positive integer;

T' is a combinatorial unit, where each T' may be different if m is greater than 1;

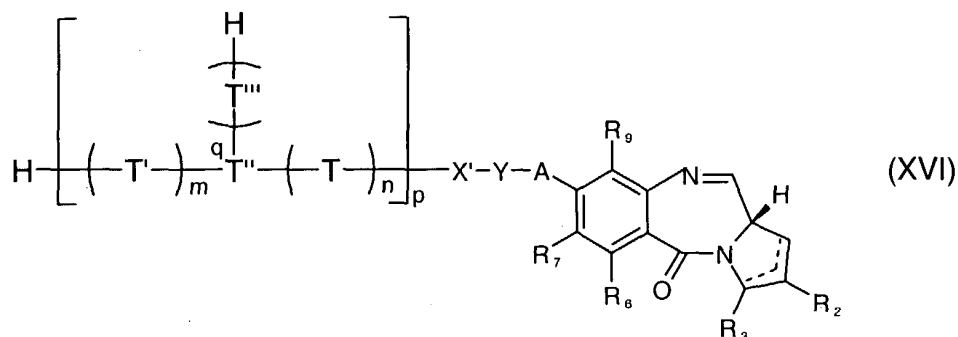
T'' is combinatorial unit which provides a site for the attachment of X'; and

p is a positive integer, where if p is greater than 1, for each repeating unit the meaning of X', Y, A, R₂, R₃, R₆, R₇, R₉, T, T', T'' and values of n and m are independently selected;

and

X'', Y', A', R'₂, R'₃, R'₆, R'₇, R'₉ are selected from the same possibilities as X', Y, A, R₇, R₂, R₃, R₆, and R₉ respectively.

53. (New) A collection of compounds all of which are represented by formula XVI:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

n is a positive integer;

m is a positive integer;

T' is a combinatorial unit, where each T' may be different if m is greater than 1;

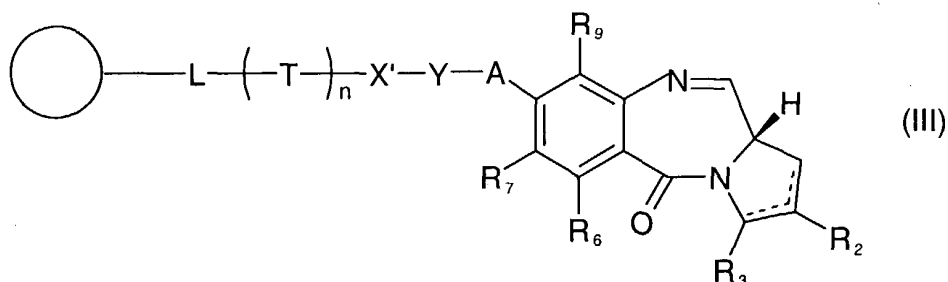
T'' is combinatorial unit which provides a site for the attachment of X'; and

p is a positive integer, where if p is greater than 1, for each repeating unit the meaning of X', Y, A, R₂, R₃, R₆, R₇, R₉, T, T', T'' and values of n and m are independently selected; and

T''' and q are selected from the same possibilities as T and n respectively, and where if p is greater than 1, the meanings of T, T', T'', T''' and values of n, m and q may be

independently selected.

54. (New) A collection of compounds all of which are represented by formula III:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

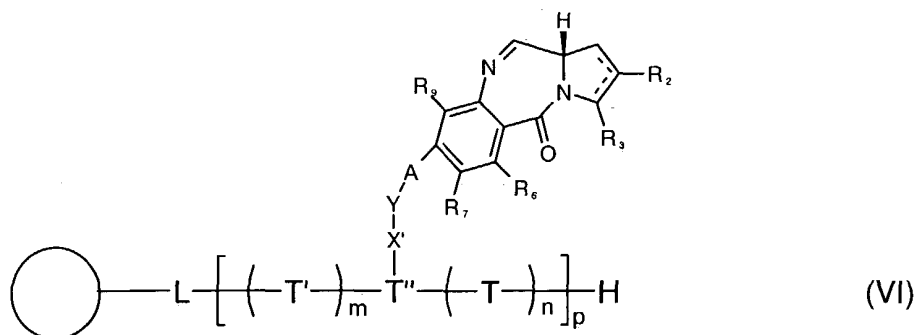
T is a combinatorial unit;

n is a positive integer;

L is a linking group, or a single bond; and

O is a solid support.

55. (New) A collection of compounds all of which are represented by formula VI:



wherein:

A is O, S, NH, or a single bond;

R_2 and R_3 are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R_6 , R_7 , and R_9 are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

L is a linking group, or a single bond;

O is a solid support;

n and m are positive integers, or one of them may be zero;

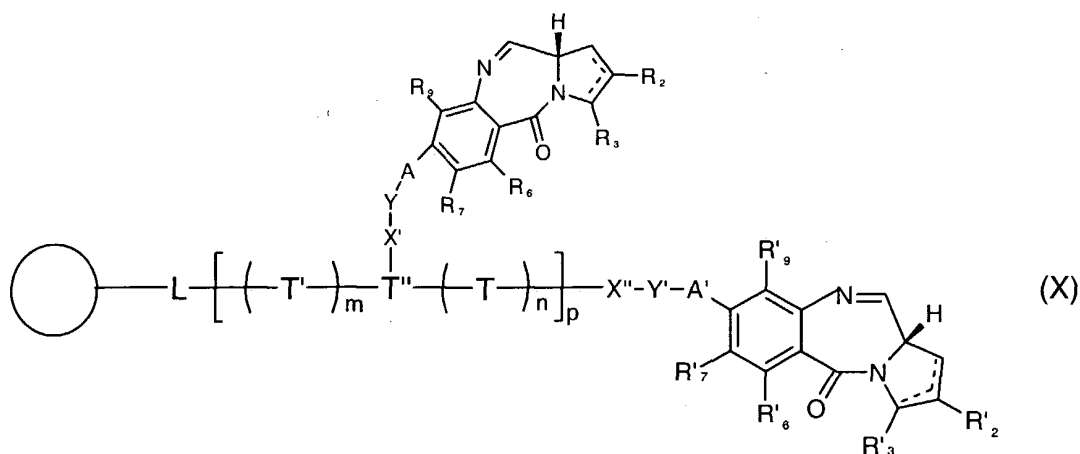
T' is a combinatorial unit, where each T' may be different if m is greater than 1;

T'' is a combinatorial unit which provides a site for the attachment of X'; and

p is a positive integer, where if p is greater than 1, for each repeating unit, the meaning of X',

Y, A, R_2 , R_3 , R_6 , R_7 , R_9 , T, T', T'' and the values of n and m are independently selected.

56. (New) A collection of compounds all of which are represented by formula X:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

L is a linking group, or a single bond;

O is a solid support;

n and m are positive integers, or one of them may be zero;

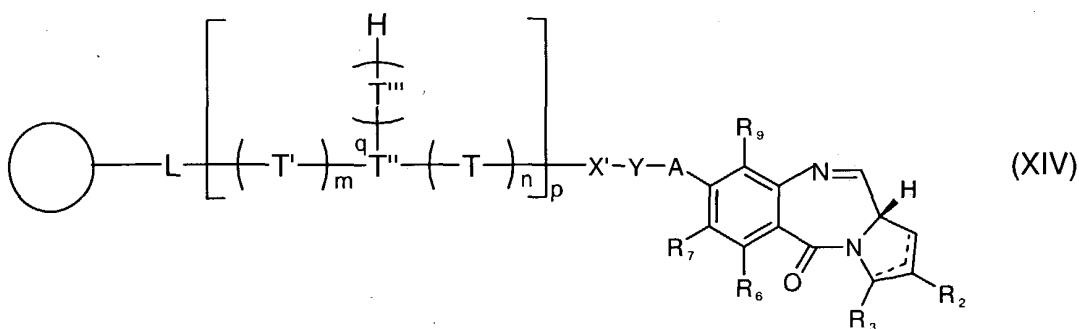
T' is a combinatorial unit, where each T' may be different if m is greater than 1;

T'' is a combinatorial unit which provides a site for the attachment of X';

p is a positive integer, where if p is greater than 1, for each repeating unit, the meaning of X', Y, A, R₂, R₃, R₆, R₇, R₉, T, T', T'' and the values of n and m are independently selected; and

X'', Y', A', R'₂, R'₃, R'₆, R'₇ and R'₉ are selected from the same possibilities as X', Y, A, R₂, R₃, R₆, R₇ and R₉.

57. (New) A collection of compounds all of which are represented by formula XIV:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

L is a linking group, or a single bond;

O is a solid support;

n and m are positive integers, or one of them may be zero;

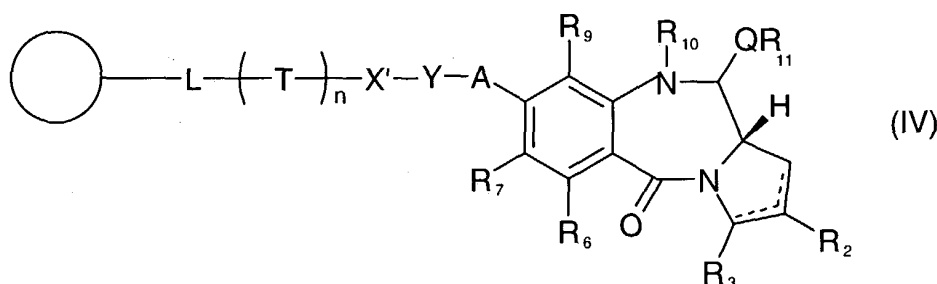
T' is a combinatorial unit, where each T' may be different if m is greater than 1;

T'' is a combinatorial unit which provides a site for the attachment of X';

p is a positive integer, where if p is greater than 1, for each repeating unit, the meaning of X', Y, A, R₂, R₃, R₆, R₇, R₉, T, T', T'' and the values of n and m are independently selected; and

T''' and q are selected from the same possibilities as T and n respectively, and where if p is greater than 1, for each repeating unit the meaning of T, T', T'', T''' and the values of n, m and q may be independently selected.

58. (New) A collection of compounds all of which are represented by formula IV:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that $HY = R$;

X' is CO, NH, S or O;

T is a combinatorial unit;

L is a linking group, or a single bond;

O is a solid support;

n is a positive integer;

R₁₁ is either H or R;

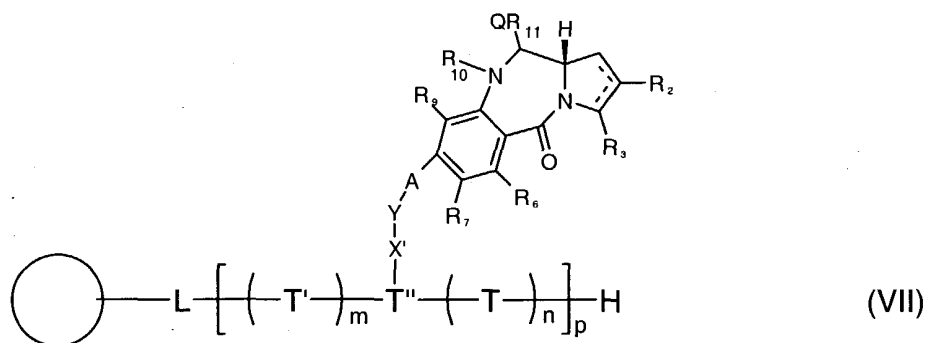
Q is S, O or NH; and

R₁₀ is a nitrogen protecting group.

59. (New) A collection of compounds according to claim 58, wherein R₁₀ has a carbamate functionality where it binds to the nitrogen atom at the 10 position of a PBD ring structure.

60. (New) A collection of compounds according to claim 58, wherein Q is O, and/or R₁₁ is H.

61. (New) A collection of compounds all of which are represented by formula VII:



wherein:

A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that $HY = R$;

X' is CO, NH, S or O;

T is a combinatorial unit;

L is a linking group, or a single bond;

O is a solid support;

n and m are positive integers, or one of them may be zero;

T' is a combinatorial unit, where each T' may be different if m is greater than 1;

T'' is a combinatorial unit which provides a site for the attachment of X';

p is a positive integer;

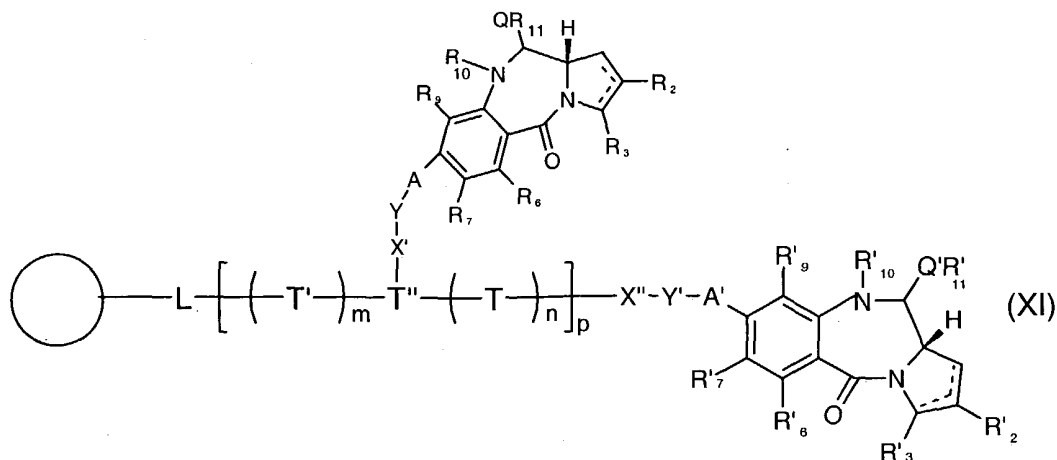
R₁₁ is either H or R;

Q is S, O or NH;

R₁₀ is a nitrogen protecting group; and

where if p is greater than 1, for each repeating unit the meanings of X', Y, A, R₂, R₃, R₆, R₇, R₉, T, T', T'', Q, R₁₀, R₁₁ and the values of n and m are independently selected.

62. (New) A collection of compounds all of which are represented by formula XI:



wherein:

A is O, S, NH, or a single bond;

R_2 and R_3 are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R_6 , R_7 , and R_9 are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

L is a linking group, or a single bond;

O is a solid support;

n and m are positive integers, or one of them may be zero;

T' is a combinatorial unit, where each T' may be different if m is greater than 1;

T'' is a combinatorial unit which provides a site for the attachment of X';

p is a positive integer;

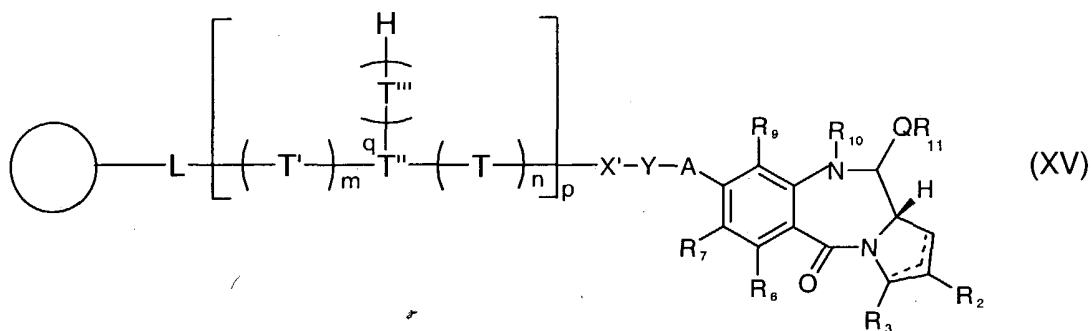
R_{11} is either H or R;

Q is S, O or NH;

R_{10} is a nitrogen protecting group; and

Q' , R'_{10} , R'_{11} , have the same definitions as Q, R_{10} , R_{11} , respectively, and where if p is greater than 1, for each repeating unit the meanings of X', Y, A, R_2 , R_3 , R_6 , R_7 , R_9 , T, T', T'', Q, R_{10} , R_{11} and the values of n and m are independently selected.

63. (New) A collection of compounds all of which are represented by the formula XV:



A is O, S, NH, or a single bond;

R₂ and R₃ are independently selected from: H, R, OH, OR, =O, =CH-R, =CH₂, CH₂-CO₂R, CH₂-CO₂H, CH₂-SO₂R, O-SO₂R, CO₂R, COR, CN and there is optionally a double bond between C1 and C2 or C2 and C3;

R₆, R₇, and R₉ are independently selected from H, R, OH, OR, halo, nitro, amino, Me₃Sn;

where R is an alkyl group having 1 to 10 carbon atoms, or an aralkyl group, of up to 12 carbon atoms, whereof the alkyl group optionally contains one or more carbon-carbon double or triple bonds, which may form part of a conjugated system, or an aryl group, of up to 12 carbon atoms; and is optionally substituted by one or more halo, hydroxy, amino, or nitro groups, and optionally contains one or more hetero atoms which may form part of, or be, a functional group;

Y is a divalent group such that HY = R;

X' is CO, NH, S or O;

T is a combinatorial unit;

L is a linking group, or a single bond;

O is a solid support;

n and m are positive integers, or one of them may be zero;

T' is a combinatorial unit, where each T' may be different if m is greater than 1;

T'' is a combinatorial unit which provides a site for the attachment of X';

p is a positive integer, where if p is greater than 1, for each repeating unit, the meaning of X', Y, A, R₂, R₃, R₆, R₇, R₉, T, T', T'' and the values of n and m are independently selected;

T''' and q are selected from the same possibilities as T and n respectively, and where if p is greater than 1, for each repeating unit the meaning of T , T' , T'' , T''' and the values of n , m and q may be independently selected;

R_{11} is either H or R;

Q is S, O or NH;

R_{10} is a nitrogen protecting group;

64. (New) A method of screening the collection of compounds of claim 39 to discover compounds with a specific biological activity.